MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2018/2019

BAC4684 – ENTERPRISE RESOURCE PLANNING SYSTEMS

SYSTEMS
(All sections / Groups)

1 MARCH 2019
3.00pm – 6.00pm
(3 Hours)

INSTRUCTIONS TO STUDENT

1. This Question paper consists of 4 pages with 4 Questions only.

2. Attempt **ALL** questions in Section A and Section B. The distribution of the marks for each question is given.

3. Please write all your answers in the Answer Booklet provided.

SECTION A: CASE STUDY

Nestlé's ERP Implementation

Since market leader SAP introduced R3, the first ERP system with client-server architecture in 1992, thousands of companies worldwide have implemented this software. Many have been successful, but none has been without problem. Nestle USA was on one them. Nestle USA has seven business divisions: beverages, confections, and snacks, food services, foreign trade, nutrition, prepared foods, and sales. Some of the popular brands sold in United States by Nestle are Alpo, Baby Ruth, Carnation Instant Breakfast, Coffee-Mate, Nescafe, and Taster's Choice. Its annual revenue is around $8.1 billion with 16,000 employees.

The ERP implementation at Nestle, code-names BEST (Business Excellence through Systems Technology), has estimated cost of $210 million with an IT staff (including outside consultants) of 250, began in 1997, and was due to be completed in 2003. The project main goal was to use common business processes, systems, and organisational structures across the autonomous divisions within the United States. These common systems across Nestle USA would create savings through group buying power and facilitate data sharing between the subsidiaries.

Jeri Dunn, CIO of Nestle USA, joined with executives in charge of finance, supply chain, distribution, and purchasing to form a key stakeholder's team for implementing the SAP. The stakeholder team made it clear to the top management that the SAP implementation would require business process reengineering and couldn't be done without changing the way Nestle USA did business.

The stakeholder team, however, did not include any members from the groups that would be directly affected by the new business process. This caused a rebellion in the ranks and the employees resisted. Nobody wanted to learn the new way of doing things. Divisional executives were confused and angry. Morale sank and employee turnover reached 77%. Help desk calls reached 300 per day. The project team had overlooked the integration points between modules to account for the Y2K deadline. By the beginning 2000, the rollout had collapsed into chaos and the project was halted. In its haste to unify the company's separate brands, the project team had essentially replaced divisional silos with process silos.

The company reconvened the stakeholder team and started the SAP implementation process from scratch. The group members eventually decided that to finish the project, they would need to start with the business requirements and then reach an end date, rather than trying to fit the project into a mould shaped by predetermined end dates. They also made sure that they had support from the key divisional heads and that all the employees knew exactly what changes were taking place.

With SAP in place, Nestle USA has already achieved a significant return on investment (ROI). The common databases and business processed led to more trustworthy demand forecasts for the various Nestle products.

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This also allowed the company reduce inventory and redistribution expenses. In 2003, Nestle signed a $500 million, five-year deal with IBM for server, hardware, software and IT services, and integration of its mySAP.com e-Business software system, giving its workers access to mySAP.com via an internal portal customized for their individual jobs. Nestle is attempting to solve the information management and systems challenge by standardizing on a common ERP system globally.

As a part of this initiative, they are rolling out a common e-procurement solution across its major regions and markets. Adoption of the solution, which is being licensed from SAP, has been accelerated by Nestle's e-procurement roll out that does not conflict with its global ERP and data centre consolidation efforts. This approach also allows Nestle to handle implementation and change management issues during the initial rollout, enabling simplified system setup and configuration when e-procurement system management moves in-house.

Source: Adapted from Worthen, B. (2002). Nestle's ERP Odyssey, CIO Magazine, May 15; Aberdeen Group.

QUESTION 1

a) The Nestle case study above is an example of ERP implementation and business process reengineering (BPR) issue. Based on this case, discuss whether the implementation of ERP system is a result of BPR or does BPR occurs due to ERP implementation? Justify your answer based on the case study.

(6 marks)

b) Refering to the Nestlé Case above, what are the issues faced by Jeri Dunn, the CIO of Nestle USA? Explain the **THREE (3)** of them.   (15 marks)

c) This case demonstrates that the ERP implementation isn't just about systems installation, the challenging part is changing the business process of the people who will use the system. Assume you are a part of the stakeholder team; suggest **TWO (2)** solutions for the change management issues faced by Nestle.

(10 marks)

d) Identify **THREE (3)** benefits of ERP implementation at Nestlé USA and other organizations.   (9 marks)

(Total: 40 marks)

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SECTION B: ESSAY

Attempt **ALL** questions.

QUESTION 2

a) Discuss **one** of the factors that lead to the evolution of Information Systems in an organization. Explain how could the use of ERP systems eliminate information or functional silos in organizations. (10 marks)

b) Briefly explain with **TWO (2)** examples, problems in **sales order process** that might occurred as a result of company having unintegrated system.
(10 marks)

Total: 20 marks)

QUESTION 3

a) Fitter Snacker can produce 333.3 cases of snack bars per day during the standard 8-hours work weekly. They can work 2 hours of overtime per weekday, plus 4 hours on Saturday. They are developing sales and operation planning (SOP) for a month of June with 23 weekdays and 4 Saturdays.

What is the maximum number of cases that Fitter Snacker can produce in the month of June if they schedule workers for overtime on weekdays and Saturdays?
(8 marks)

b) As a result of the failure of Enron, as well as the high-profile bankruptcies of WorldCom and Global Crossing, the United States Congress passed the Sarbanes-Oxley Act of 2002. This act was intended to prevent the kind of fraud and abuse that led to the Enron downfall. Explain **THREE (3)** implications of the Sarbanes-Oxley Act for ERP system?
(12 marks)

(Total: 20 marks)

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QUESTION 4

a) List and describe the tools that normally provided in ERP Human Resources (HR) modules.   (4 marks)

b) Define Radio frequency identification (RFID) and discuss its role in logistics and sales department.

(10 marks)

c) Discuss **TWO (2)** advantages of process model.   (6 marks)

(Total: 20 marks)

End of Paper.